



# The Closed-Loop Scoop

Washington State Department of Ecology, Solid Waste & Financial Assistance Program

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## Gov. Locke Signs Executive Order for Sustainable Environmental Practices by State Agencies

On September 18, Gov. Gary Locke signed an executive order calling for sustainable environmental practices for all state agencies. The goal is to use human, environmental and economic resources more wisely, including the use of energy efficient products, recycled materials and conservation programs.

The executive order will guide Washington state government's long-term sustainability practices and strengthen the state's economic and environmental vitality. This includes using the state's \$1 billion in purchasing power for environmental products and conservation.

Locke signed the executive order following the first meeting of the Governor's Sustainable Washington Advisory Panel at the Washington State Convention & Trade Center in Seattle. The advisory panel consists of representatives from the public and private sector who will focus on developing an action plan for a sustainable Washington.

"We're committed to strengthening the health of Washington's economy, environment and

communities," Locke said. "Employing sustainable practices enables us to address our current needs without sacrificing the needs of future generations. We, as a state, should serve as a model and contribute positively to the long-term protection and enhancement of our quality of life."

This announcement fulfills a promise that Locke made in February upon receiving an award from the Resource Renewal Institute. At the time, Locke pledged to create a working interagency group to pursue sustainable strategies and charged them with developing an executive order.

The executive order directs state agencies to establish sustainability objectives and prepare a biennial sustainability plan to modify their practices. It also calls for the Office of Financial Management to designate a person to assist state agencies in meeting their goals and establishes an advisory council to advise state agencies on how to apply sustainability measures to government operations.

"The state has already made efforts to promote sustainability, including

purchasing hybrid gas-electric vehicles for statewide use and setting environmentally progressive provisions for buying carpeting, lamps and office furniture in state buildings," Locke said. "But there is more that we can do to close the gap between production and consumption."

To review the Office of the Governor's Web site, visit [www.governor.wa.gov](http://www.governor.wa.gov).

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*We are very pleased about the improvement in recycling organic wastes, because that has been particularly challenging to solve," said Cullen Stephenson, who manages Ecology's solid waste program.*

## State's Recycling Rate Carries Mixed Message

In 2001, the statewide recycling rate rose to 37 percent, up from 35 percent the year before, according to data collected by the state Department of Ecology (Ecology). This increase carries both good news and bad news.

Much of the rise in the recycling rate for 2001 is due to increased recycling of organic materials, such as wood and food waste. By contrast, the amount of newspaper, metals, plastic and glass being recycled went down (see graph).

These mixed results are bringing mixed reactions among solid waste officials and the recycling community.

"We are very pleased about the improvement in recycling organic wastes, because that has been particularly challenging to solve," said Cullen Stephenson, who manages Ecology's solid waste program. "But no one can feel good about the drop in metals and glass and other materials where we've had pretty good collection systems in place for quite a while."

This year, the legislature renewed the 50 percent recycling goal established by the Waste Not Washington Act of 1989. The year 2007 was set to achieve our renewed goal. Although cities and counties have largely established the

collection infrastructure initiated by the 1989 legislation, recycling rates have not reflected these conditions as much as expected. Even so, Washington state is still among the leading states in recycling. The national average was 30 percent in 2000.

Stephenson noted that the level of waste generated in the state is at its highest ever. He said that generating less waste, along with recycling the wastes that are produced, saves energy, money and natural resources.

Recycling diverted more than four million tons of material from landfills and incinerators in 2001. This includes traditionally recycled materials, such as glass, aluminum and paper, as well as those that have not been traditionally included, such as asphalt, concrete, and used oil burned for fuel. Ecology will continue to collect information on these nontraditional materials, reporting results to its partners in recycling.

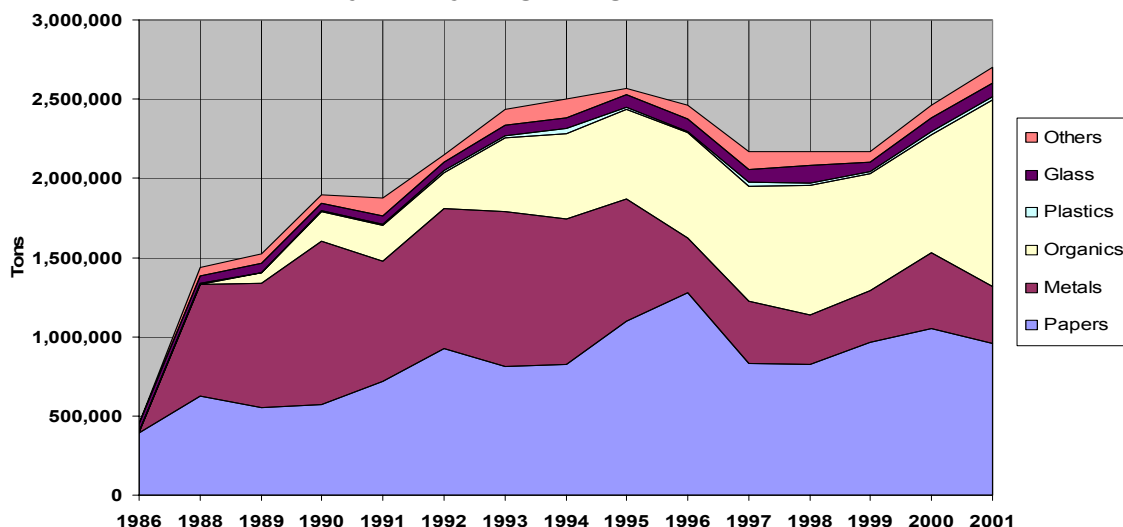
*For more information on recycling statistics contact  
Gretchen Newman*

*360-407-6097 or e-mail:  
[gnew461@ecy.wa.gov](mailto:gnew461@ecy.wa.gov)*

*or visit:*

*<http://www.ecy.wa.gov/program/s/swfa/solidwastedata/>*

**Washington State Recycling Survey  
Six Major Recycling Categories 1986 to 2001**



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# WUTC Holds Stakeholder Workshops on Recycling Bill



On August 26, 2002, the Washington Utilities and Transportation Commission (WUTC) circulated a Notice of Opportunity to Increase Recycling through the implementation of RCW81.77.185. This statute resulted from passage of Substitute House Bill 2308, also known as WUTC's "revenue sharing" proposal.

At a stakeholder workshop held by the WUTC on October 3, 2002, in Olympia, discussion was held about the impacts of revenue sharing.

These workshops were designed to facilitate discussion between local governments and companies about how implementation of company recycling plans might increase recycling opportunities in their area. The bill allows solid waste collection companies to retain up to thirty percent of the revenue received from the sale of recyclables.

For this to happen, haulers must meet certain conditions. A company recycling plan that demonstrates an increase in recycling must be certified by the appropriate local government and subsequently filed with WUTC.

WUTC made it clear at the October meeting that it wants companies and local governments to work together. The WUTC staff will rely heavily on local government recommendations. "The commission does not want to shape the outcome, just guide the process," said WUTC staffer Gene Eckhardt. Staff also stated that the legislature was clear that the implementation was not intended to be a bureaucratic process.

## What will happen to the money kept by the company?

Much discussion at the meeting surrounded the issue of the retained money. What are the options? Haulers' opinions were that this legislation was a bill to encourage recycling through financial incentive: revenue to the companies. The WUTC staff agreed that this interpretation was within the scope of the legislation, as long as a demonstration of increased recycling is clearly linked to the retained revenue.

For example, with the percentage of the revenue that the company is allowed to keep, they might show that a certain percentage of that is going toward education and outreach while the remaining amount goes toward their profits. Each plan will be unique but must demonstrate how recycling will increase.

## Bottom line

The bottom line is that the company has to demonstrate an increase in recycling in their plan, and the appropriate local government has to certify the plan. If the best incentive for a company to increase recycling is to keep their share of the revenue-- then so be it, according to a broad interpretation of legislative intent by the WUTC staff.

Another component of the plan is that companies and local governments must work together. The "appropriate local government authority," which can be either the city or the county, has to certify each company plan prior to the plan's submission to the WUTC. This means that local government is putting their stamp of approval on a plan, affirming that they believe the

proposed plan is consistent with the local solid waste management plan.

How the success of this program will be measured by the WUTC is one of the items yet to be determined in the planning of the bill's implementation. The WUTC is scheduled to report to the legislature in 2005 regarding the effectiveness of this program.

WUTC staff went on to say that they don't think that the legislature meant for this to be a one-time program. As long as companies and local government work together to certify plans with measurable increases in recycling, there should be room for expanding recycling programs under this legislation.

The effective date of this bill was June 13, 2002. The WUTC is ready and waiting for proposals.

Thurston County reminded everyone that customers will need to see the benefits from this program, i.e., more or better service. "Customer bills WILL increase under this statute," advises WUTC staffer Deborah Reynolds. The increase is a direct result of revenue sharing. Revenue is currently all given back to customers; however, after revenue sharing, some of that money will be kept by the company. Bills may also increase through additional program costs.

A complete text and history of Substitute House Bill 2308 can be viewed on the World Wide Web at <http://www.leg.wa.gov/wsladm/billinfo/housebillinfo.cfm>.

For more information, contact Deborah Reynolds, WUTC, 360-664-1255, [dreynold@wutc.wa.gov](mailto:dreynold@wutc.wa.gov).

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*Revenue Sharing is giving a portion of the customer's revenue from the sale of recyclables to the hauler.*

# Governor Honors Facilities That Put Community and Environment First

On September 18, 2002, Governor Gary Locke, accompanied by [Department of Ecology](#) Director Tom Fitzsimmons, presented the tenth annual Governor's Awards for Pollution Prevention and Sustainable Practices. The awards were presented at the Washington State Convention & Trade Center in Seattle.

The judges who selected the winners included past award winners, pollution-prevention experts, and representatives from labor, business and environmental groups.

The judges evaluated the entries on their innovative efforts to:

- Reduce the use of toxic materials.
- Reduce the amount of waste created.
- Increase the use of renewable and recycled materials.
- Reduce energy use or use renewable energy sources.
- Reduce water consumption.
- Minimize the environmental effect of a product throughout its life cycle.

In addition to these efforts, all the award winners reached out to their customers and other businesses to promote pollution prevention and sustainable practices.

## ***The winners of the 2002 awards are:***

- **Batdorf and Bronson Coffee Roasters** - Olympia, for commitment to renewable and sustainable energy production and agriculture.
- **Columbia River Carbonates** - Woodland, for developing an innovative system that reuses production-process water and eliminates wastewater discharges.
- **Madison Carnolia Cleaners** - Seattle, for reducing the use of perchloroethylene, a potential carcinogen, and conserving energy.
- **Watson Furniture Group** - Poulsbo, for reducing the use of toxic substances, using recycled and reclaimed materials, and protecting water quality at its facility.

- **The Wenatchee World Newspaper** - for redesigning products and its production facility to conserve resources and energy and to reduce the use of toxic substances.
- **City of Seattle**, for a citywide commitment to sustainability in business practices and reducing the use of toxic substances.

Fitzsimmons noted that the companies and the city had demonstrated that efficient use of resources is good for business, the environment and the community.

"These exemplary winners made comprehensive efforts to prevent pollution and support sustainability," said Fitzsimmons. "They went above and beyond simply producing goods and services in an environmentally sound manner by looking at the effect their work will have on the condition and availability of future resources."

Governor Locke applauded the winners for their hard work:

*"Those of you receiving this award today are leaders and role models, showing us that we can use our resources more efficiently and use less-harmful substances in production systems."*





# From Waste-to-Worth

Jay Shepard, Sustainability Strategist

## ZERO Waste

Everyone knows that CO<sub>2</sub> is a major contributor to global warming, but did you know that methane has 23 times more effect than carbon dioxide as a greenhouse gas? Greenhouse gases contribute to global warming. Among human activities in the country and in Washington State, our landfills are the largest source of methane generation. Methane is created in landfills through anaerobic digestion of organic material (decomposition in the absence of oxygen). Composting is aerobic digestion (decomposition using oxygen), and it creates carbon dioxide rather than methane.

I was curious to know what the net gain or loss would be, in the generation of greenhouse gases, if we composted organics above ground in controlled environments rather than disposing of organic material in a landfill.

I asked Jon Bennett, our resident chemist on staff here in the Solid Waste and Financial Assistance Program, if he could figure it out. Through modeling, Jon provided data about methane and carbon dioxide generation through anaerobic and aerobic decomposition.

As you can see, incomplete anaerobic decomposition of 6,900 pounds of pulp and paper waste in a landfill would generate the equivalent of 12,647 pounds of carbon dioxide (the potency of methane generation has been converted to carbon dioxide equivalents for comparison

purposes). The landfill would continue to contain undigested wastes. Complete decomposition of the same material in an anaerobic environment would generate the equivalent of 52,634 pound of carbon dioxide. Yet aerobic decomposition would generate only 11,244 pounds of carbon dioxide after complete digestion of the same material.

This is worth our attention. If we diverted organic material away from the landfill to composting facilities we would reduce our greenhouse gas emission from landfills by as much as 78 percent! At the same time, we would create a material that can be applied safely to the land. The material would not go in the landfill where we would have to monitor it well into the future. The investment in methane collection systems could be avoided and diverted to composting facilities. When the composting facility reached the end of its useful life, it would simply be closed, without expensive closure and postclosure care costs.

If we directed organic material to anaerobic digesters, we would get complete digestion, materials for land application, and we could harvest methane for energy. Either way it would be a win for the environment.

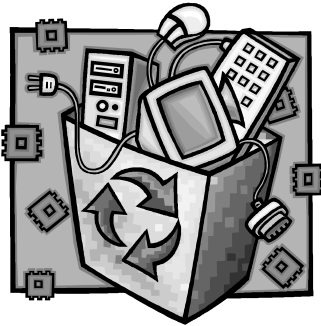
Now that is "zero waste."

### SUMMARY FOR DEGRADATION OF 6900 LBS OF PULP AND PAPER WASTE / CELLULOSE (Multiply the methane number by 23 and add it to the CO<sub>2</sub> number to get the CO<sub>2</sub> equivalent.)

Degradation Type	Facility	Methane/CH <sub>4</sub> (lbs)	CO <sub>2</sub> (lbs)	CO <sub>2</sub> + CO <sub>2</sub> Equiv. (lbs)
1) Anaerobic (incomplete) pulp & paper waste	Landfill	491	1,354	12,647
2) Anaerobic (complete) cellulose	Theoretical	2,044	5,622	52,634
3) Aerobic (complete) cellulose	Theoretical	N/A	11,244	11,244

# THE RESULTS ARE IN: Consumers Say Yes to Producer Responsibility

*Concern about Toxic Materials in Electronic Products and Limited Recycling Prompts Consumer Survey*



## A Citizen's Guide to Producer Responsibility

*The WCRC will be releasing a new publication, A Citizen's Guide to Producer Responsibility, in early 2003. The Guide will provide useful information and resources on the issues of electronics waste and recycling. Free copies of the guide are available by contacting WCRC at 206-675-0836 or [wcrc2001@yahoo.com](mailto:wcrc2001@yahoo.com).*

In September, Washington Citizens for Resource Conservation (WCRC), a citizen-based advocacy group, announced the results of a telephone survey addressing electronics waste and recycling.

The survey was prompted by increasing public concern about toxic materials contained in computers and televisions and the limited options for recycling those items.

Computers and televisions contain significant quantities of mercury and lead and are difficult to disassemble for recycling. Because of their toxic components, computers, monitors and televisions have been banned from disposal at landfills and incinerators in many communities across the U.S. and in Washington.

The study found that Seattle-area residents overwhelmingly believe that electronics manufacturers should be responsible for designing easily recyclable, less toxic products, and for providing a safe and convenient way to recycle those products. In addition, the study revealed that retailers have a role to play. Residents would prefer to take their used computers back to local retailers for recycling.

The study also noted that when faced with a "prepaid" recycling fee added to the cost of the product, residents are highly unlikely to adjust their buying habits. They will still buy their television or computer of choice. But they would prefer to have the recycling fee included in the

overall price of the product, rather than presented as a separate fee.

The study highlights include:

- 94 percent of respondents agreed that corporations that make electronic products should be responsible for designing them to be easily recyclable and less toxic.
- 92 percent agreed that when these products contain toxic lead and mercury, these corporations should provide a safe and convenient way to recycle them.
- 71 percent of respondents would prefer that prepaid recycling costs be included in the retail cost of the product.
- 61 percent of respondents would prefer to take their computers and electronic products back to a retailer for recycling, even if free recycling were also offered at local landfills, transfer stations or via shipping to the original manufacturer.
- 86 percent of survey respondents said they would still buy a television even if a prepaid recycling fee of \$15 were added to the cost.
- 8 percent said they would buy over the Internet to avoid the prepaid recycling fee.
- 55 percent said they would bring their computer in for recycling even if charged a \$20 fee to recycle it.
- 34 percent said they would store their computer at home instead of recycling the computer and paying the \$20 fee.
- 4 percent admitted that they would put their computer in the garbage illegally to avoid the \$20 fee.

*See Product Stewardship on Page 7*



Full survey results are available on-line at [http://www.prrbiz.com/WCRC\\_Report2.pdf](http://www.prrbiz.com/WCRC_Report2.pdf).

"The WCRC survey demonstrates that consumers are willing to step up and take responsibility for their part in the product stewardship process.

And when consumers are asked to pay a reasonable recycling fee, they will still continue to buy electronics from their local retailer," stated WCRC citizen activist Suellen Mele. "But they also want corporate manufacturers to be responsible for designing products that are environmentally friendly as well as providing safe and convenient recycling programs."

The WCRC survey was written in cooperation with PRR, a Seattle consulting firm, and included in the August edition of SoundStats, a monthly omnibus survey fielded by Northwest Research Group. The poll was fielded between August 14 and August 18. The sample included 407 King County residents, chosen at random from local residential phone listings. The overall margin of error for the sample is plus or minus 5 percent.

The findings of the WCRC study are particularly notable because they directly contradict an Electronic Industries Association (EIA) poll administered to a sample of on-line consumers between May 28 and June 3, 2002. According to the EIA, a national trade organization that represents 80 percent of the U.S.

electronics manufacturers (a \$550 billion industry), their poll results indicated that prepaid recycling fees as low as \$5 would reduce consumer likelihood to buy new electronic products. In addition, EIA reported that these consumers would choose to buy on-line, incurring additional shipping and handling costs, in order to avoid a prepaid recycling fee at a retail store.

EIA has asserted that consumers attempting to bypass recycling fees would significantly impact state sales tax revenues in states enacting prepaid recycling.

Despite heavy industry lobbying, the California legislature passed such a bill (requiring prepaid recycling fees) in mid-September, and similar bills are expected to be introduced in numerous states in the next year.

"Our survey directly contradicts results reported by an electronics industry survey conducted by the EIA," observed Mele. "It made no sense that consumers would rather pay significant shipping and handling charges for an Internet purchase in order to avoid a much smaller fee that helps them and the environment. We wanted to check it ourselves. And we really aren't surprised by the results."



**"Great Strides  
Towards Compost Quality  
& End Use"**

The Washington Organic Recycling Council (WORC) is pleased to present a one-day seminar featuring the latest information on compost quality issues and opportunities.

Compost quality standards are looming on the horizon. Several years of successful soil conservation and restoration programs in the Northwest have expanded the number of educated consumers and increased compost utilization. As a result, end users are recognizing the importance of compost specifications that address quality control. A number of entities have developed compost quality standards including some states and the U.S. Composting Council. This seminar will address quality control standards which will meet consumers' needs while being responsive to product performance issues, including health and safety. Join WORC and others in exploring trends in compost quality and affecting industry standards in the northwest.

The seminar will be **9am - 5pm, December 3, 2002, at Club Green Meadows Conference Center, Vancouver, Washington.** For more information, visit WORC's Web site at [http://www.compostwashington.org/annual\\_mtg.htm](http://www.compostwashington.org/annual_mtg.htm).

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### **Newsletter Editor:**

Michelle Payne  
360-407-6129  
[mdav461@ecy.wa.gov](mailto:mdav461@ecy.wa.gov)

### **Copy Editor:**

Jim Bill  
360-407-6125  
[jbil461@ecy.wa.gov](mailto:jbil461@ecy.wa.gov)

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